

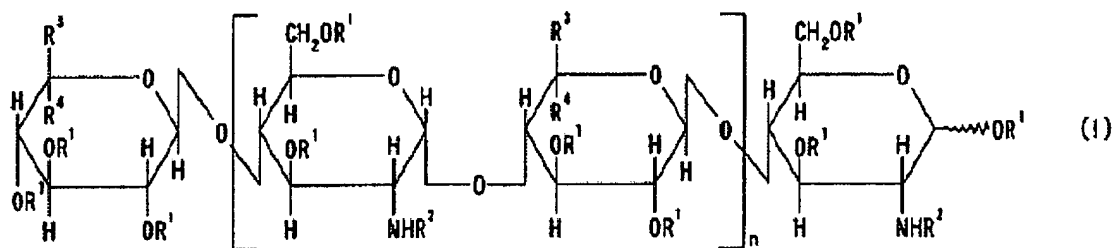
**AMENDMENTS TO THE CLAIMS**

1. **(Withdrawn)** An agent for promoting HGF production comprising, as an effective ingredient, a disaccharide comprised of an uronic acid residue (wherein an uronic acid means an iduronic acid or a glucuronic acid, and has the same meaning hereinafter) and a glucosamine residue that are connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage, or tri- to hexadeca-saccharides having a structure in which uronic acid residue(s) and glucosamine residue(s) are alternately and repeatedly connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage, wherein at least one hydroxy group of the uronic acid residue(s) and/or the glucosamine residue(s) may be sulfated, alkylated, acylated or aminated, and/or amino group at position 2 of at least one of the glucosamine residue(s) may be sulfated, alkylated or acylated, or a salt thereof.
2. **(Withdrawn)** The agent for promoting HGF production according to claim 1, wherein the hydroxy group at position 2 of at least one of the uronic acid residue(s) and/or the hydroxy group at positions 3 and/or 6 of at least one of the glucosamine residue(s) may be sulfated.
3. **(Withdrawn)** The agent for promoting HGF production according to claim 1, wherein the hydroxy group at position 6 and/or the amino group at position 2 of at least one of the glucosamine residue(s) is sulfated.
4. **(Withdrawn)** The agent for promoting HGF production according to claim 1, wherein the oligosaccharide is di- to deca-saccharide.
5. **(Withdrawn)** The agent for promoting HGF production according to claim 1, wherein the oligosaccharide is a degradation product prepared from high-molecular-weight heparin or high-molecular-weight heparan sulfate by digestion with heparinase or heparitinase.

6. **(Withdrawn)** The agent for promoting HGF production according to claim 1, wherein the oligosaccharide is a degradation product prepared from high-molecular-weight heparin or high-molecular-weight heparan sulfate by digestion by any one of nitrous acid degradation, hydrogen peroxide degradation or  $\beta$ -elimination.

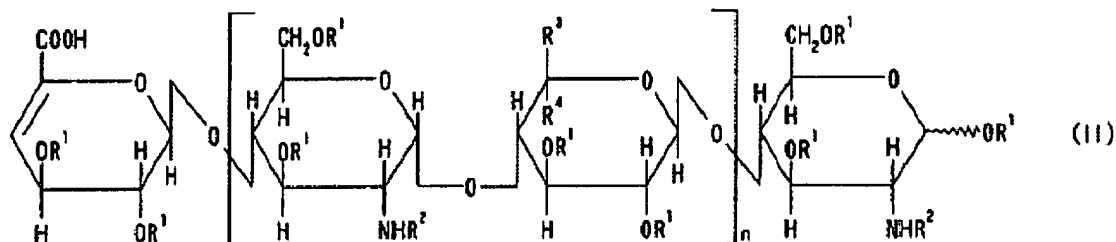
7. **(Withdrawn)** The agent for promoting HGF production according to claim 1, wherein the oligosaccharide is any one of compounds represented by the following (a) to (h);

(a) formula (I):



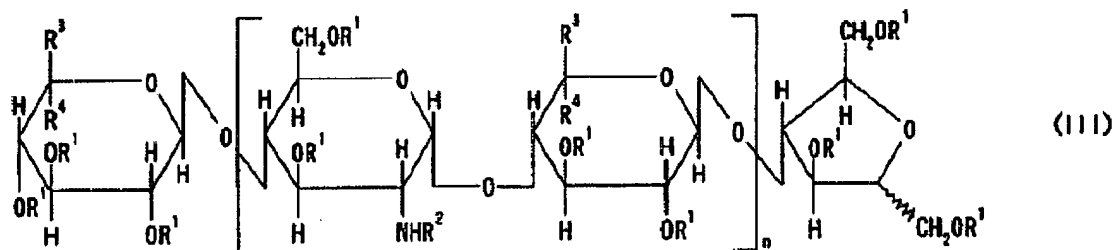
wherein R1 represents hydrogen, sulfate group, alkyl, acyl, or optionally substituted amino group, R2 represents hydrogen, sulfate group, alkyl or acyl group, R3 and R4 are different from each other and represent hydrogen or optionally substituted carboxyl group, and n represents 0 to 7,

(b) formula (II):



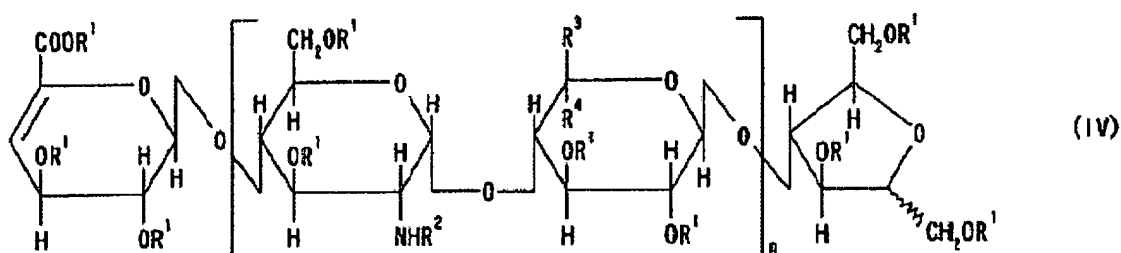
wherein all the symbols are respectively the same as defined above,

(c) formula (III):



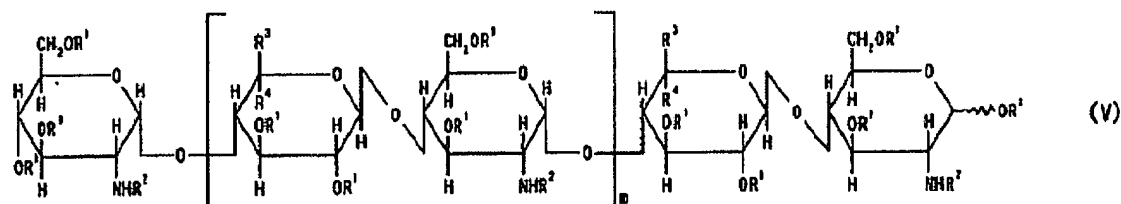
wherein all the symbols are respectively the same as defined above,

(d) formula (IV):



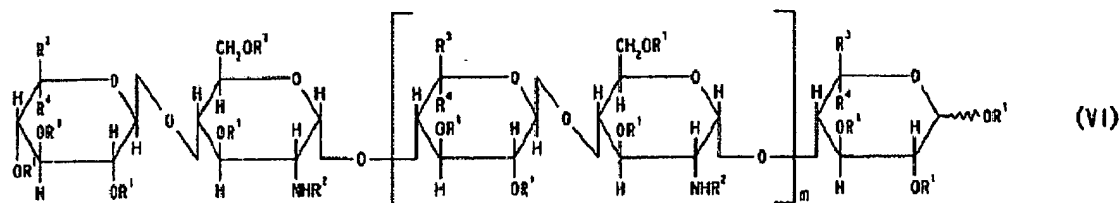
wherein all the symbols are respectively the same as defined above,

(e) formula (V):



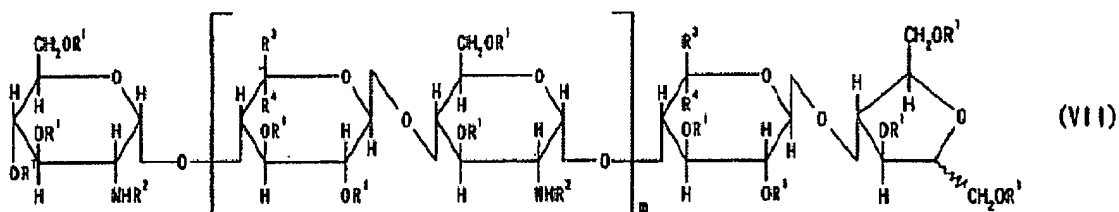
wherein m represents 0 to 6, and R1, R2, R3 and R4 are respectively the same as defined above,

(f) formula (VI):



wherein m represents 0 to 6, and R1, R2, R3 and R4 are respectively the same as defined above,

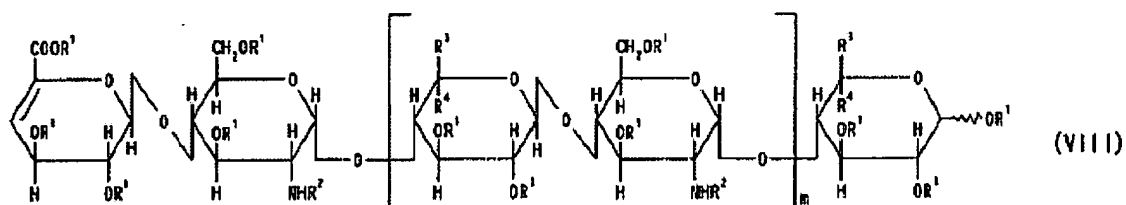
(g) formula (VII)



wherein m represents 0 to 6, and R1, R2, R3 and R4 are respectively the same as defined above,

and

(h) formula (VIII)



wherein m represents 0 to 6, and R1, R2, R3 and R4 are respectively the same as defined above.

8. **(Withdrawn)** An agent for promoting HGF production comprising, as an effective ingredient, a sugar chain compound having a structure in which uronic acid residue(s) and glucosamine residue(s) are alternately and repeatedly connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage, wherein the hydroxy group at position 6 of at least one of the glucosamine residue(s) is sulfated, or a salt thereof.

9. **(Withdrawn)** An agent for promoting HGF production comprising, as an effective ingredient, a sugar chain compound having a structure in which uronic acid residue(s) and glucosamine residue(s) are alternately and repeatedly connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage, wherein the amino group at position 2 of at least one of the glucosamine residue(s) is sulfated, or a salt thereof.

10. **(Withdrawn)** An agent for promoting HGF production comprising, as an effective ingredient, a disaccharide compound comprised of an uronic acid residue and a glucosamine residue wherein the hydroxy group at position 6 of the glucosamine residue and/or the amino group at position 2 of the glucosamine residue are/is sulfated are connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage, or a salt thereof.

11. **(Withdrawn)** The agent for promoting HGF production according to claim 1, wherein the sugar chain compound or a salt thereof has no or reduced anti-blood coagulation activity and/or lipoprotein lipase releasing activity.

12. **(Currently Amended)** A method of promoting HGF production ~~characterized by and~~ suppressing anti-blood coagulation activity and lipoprotein lipase (LPL) releasing activity of heparin fragment, comprising

\_\_\_\_\_ administering to a mammal an effective amount of an oligosaccharide selected from the group consisting of

\_\_\_\_\_ a disaccharide composed of an uronic acid residue (~~wherein an uronic acid means an iduronic acid or a glucuronic acid, and has the same meaning hereinafter~~) and a glucosamine residue that are connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage, wherein uronic acid means an iduronic acid or gluuronic acid, and has the same meaning hereafter, ~~or and~~

\_\_\_\_\_ tri- to hexadeca-saccharides having a structure in which uronic acid residue(s) and

glucosamine residue(s) are alternately and repeatedly connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage,  
\_\_\_\_\_ wherein at least one hydroxy group of the uronic acid residue(s) and/or the glucosamine residue(s) may be sulfated, alkylated, acylated or aminated, and/or the amino group at position 2 of at least one of the glucosamine residue(s) may be sulfated, alkylated or acylated,  
\_\_\_\_\_ or a salt thereof,  
\_\_\_\_\_ thus promoting HGF production and suppressing anti-blood coagulation activity and LPL releasing activity of heparin fragment.

13. **(Currently Amended)** The method of promoting HGF production and suppressing anti-blood coagulation activity and LPL releasing activity of heparin fragment according to claim 12, wherein the hydroxy group at position 2 of at least one of the uronic acid residue(s) and/or the hydroxy group at positions 3 and/or 6 of at least one of the glucosamine residue(s) ~~may be~~ is/are sulfated.

14. **(Currently Amended)** The method of promoting HGF production and suppressing anti-blood coagulation activity and LPL releasing activity of heparin fragment according to claim 12, wherein the hydroxy group at position 6 and/or the amino group at position 2 of at least one of the glucosamine residue(s) is sulfated.

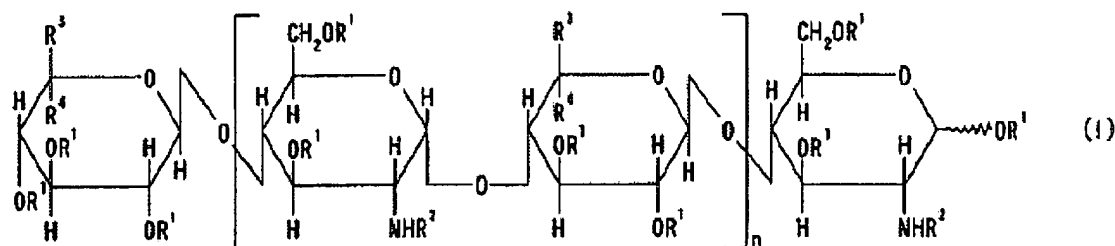
15. **(Cancelled)**

16. **(Currently Amended)** The method of promoting HGF production and suppressing anti-blood coagulation activity and LPL releasing activity of heparin fragment according to claim 12, wherein the oligosaccharide is a degradation product prepared from high-molecular-weight heparin or high-molecular-weight heparan sulfate by digestion with heparinase or heparitinase.

**17. (Currently Amended)** The method of promoting HGF production and suppressing anti-blood coagulation activity and LPL releasing activity of heparin fragment according to claim 12, wherein the oligosaccharide is a degradation product prepared from high-molecular-weight heparin or high-molecular-weight heparan sulfate by any one of nitrous acid degradation, hydrogen peroxide degradation or  $\beta$ -elimination.

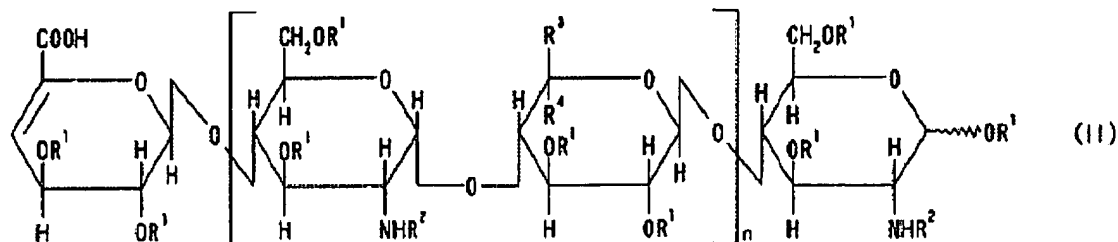
**18. (Currently Amended)** The method of promoting HGF production and suppressing anti-blood coagulation activity and LPL releasing activity of heparin fragment according to claim 12, wherein the oligosaccharide is any one of compounds represented by the following (a) to (h);

(a) formula (I):



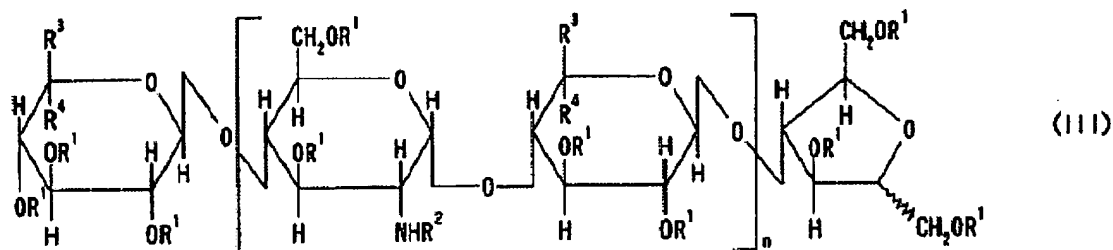
wherein R1 represents hydrogen, sulfate group, alkyl, acyl, or optionally substituted amino group, R2 represents hydrogen, sulfate group, alkyl or acyl group, R3 and R4 are different from each other and represent hydrogen or optionally substituted carboxyl group, and n represents 0 to 72,

(b) formula (II):



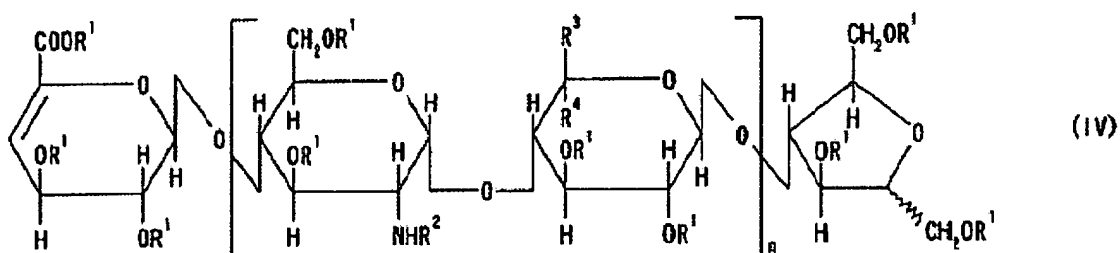
wherein all the symbols are respectively the same as defined above,

(c) formula (III):



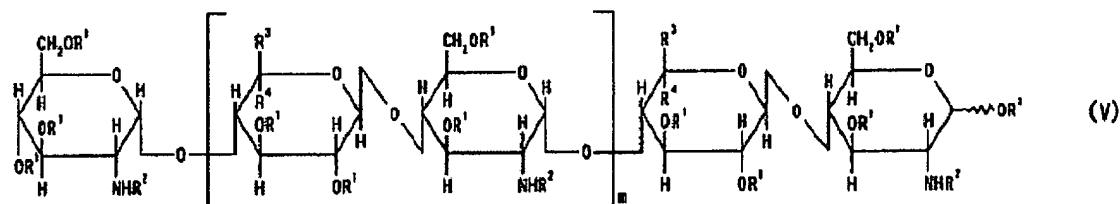
wherein all the symbols are respectively the same as defined above,

(d) formula (IV):



wherein all the symbols are respectively the same as defined above,

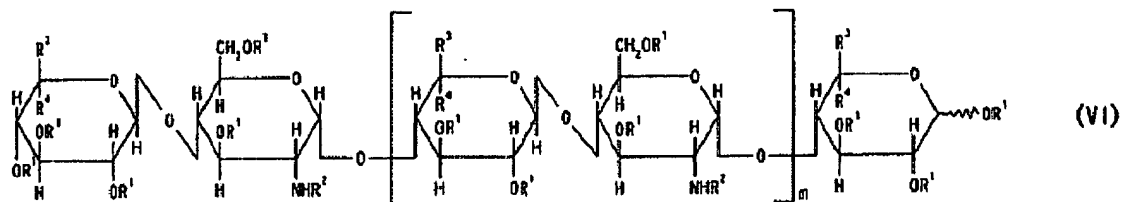
(e) formula (V):



wherein m represents 0 to 6 or 1, and R1, R2, R3 and R4 are respectively the same as defined above,

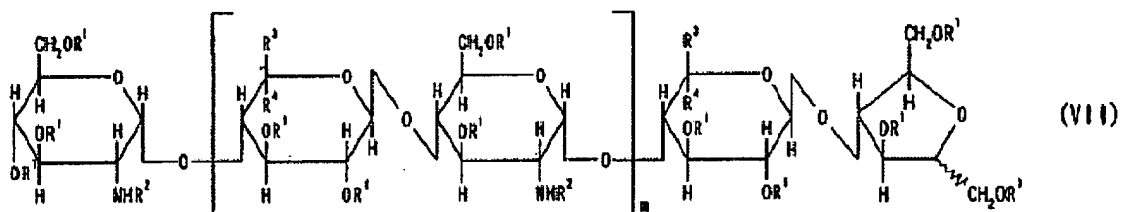
(f) formula (VI):





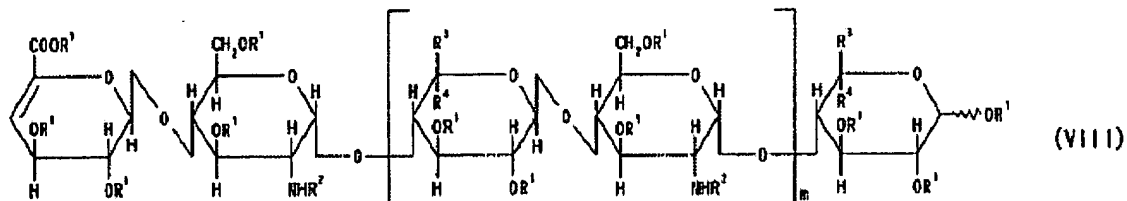
wherein m represents 0 or 1 to 6, and R1, R2, R3 and R4 are respectively the same as defined above,

(g) formula (VII)



wherein m represents 0 or 1 to 6, and R1, R2, R3 and R4 are respectively the same as defined above, and

(h) formula (VIII)



wherein m represents 0 to 6 or 1, and R1, R2, R3 and R4 are respectively the same as defined above.

**19. (Currently Amended)** A method of promoting HGF production and suppressing anti-blood coagulation activity and LPL releasing activity of heparin fragment characterized by comprising

administering to a mammal an effective amount of a sugar chain compound having a structure in which uronic acid residue(s) and glucosamine residue(s) are alternately and repeatedly connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage, wherein the hydroxy group at position 6 of at least one of the glucosamine residue(s) is sulfated, or a salt thereof,

thus promoting HGF production and suppressing anti-blood coagulation activity and LPL releasing activity of heparin fragment.

**20. (Currently Amended)** A method of promoting HGF production and suppressing anti-blood coagulation activity and LPL releasing activity of heparin fragment ~~characterized by~~ comprising

administering to a mammal an effective amount of a sugar chain compound having a structure in which uronic acid residue(s) and glucosamine residue(s) are alternately and repeatedly connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage, wherein the amino group at position 2 of at least one of the glucosamine residue(s) is sulfated, or a salt thereof,

thus promoting HGF production and suppressing anti-blood coagulation activity and LPL releasing activity of heparin fragment.

**21. (Currently Amended)** A method of promoting HGF production and suppressing anti-blood coagulation activity and LPL releasing activity of heparin fragment ~~characterized by~~ comprising

administering to a mammal an effective amount of a disaccharide compound comprised of an uronic acid residue and a glucosamine residue in which the hydroxy group at position 6 and/or the amino group at position 2 of the glucosamine residue are/is sulfated are connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage, or a salt thereof,

thus promoting HGF production and suppressing anti-blood coagulation activity and LPL releasing activity of heparin fragment.

**22. (Currently Amended)** The method of promoting HGF production and suppressing anti-blood coagulation activity and LPL releasing activity of heparin fragment according to claim 12, wherein the sugar chain compound or a salt thereof has no or reduced anti-blood coagulation activity and/or ~~lipoprotein lipase~~ LPL releasing activity.

**23. (Withdrawn)** A method for production of a medicament for promoting HGF production, which comprises mixing a disaccharide composed of an uronic acid residue (wherein an uronic acid means an iduronic acid or a glucuronic acid, and has the same meaning hereinafter) and a glucosamine residue that are connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage, or tri- to hexadeca-saccharides having a structure in which uronic acid residue(s) and glucosamine residue(s) are alternately and repeatedly connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage, wherein at least one hydroxy group of the uronic acid residue(s) and/or the glucosamine residue(s) may be sulfated, alkylated, acylated or aminated, and/or the amino group at position 2 of at least one of the glucosamine residue(s) may be sulfated, alkylated or acylated, or a salt thereof, together with a carrier.

**24. (Withdrawn)** The method according to claim 23, wherein the hydroxy group at position 2 of at least one of the uronic acid residue(s) and/or the hydroxy group at positions 3 and/or 6 of at least one of the glucosamine residue(s) may be sulfated.

**25. (Withdrawn)** The method according to claim 23, wherein the hydroxy group at position 6 and/or the amino group at position 2 of at least one of the glucosamine residue(s) is sulfated.

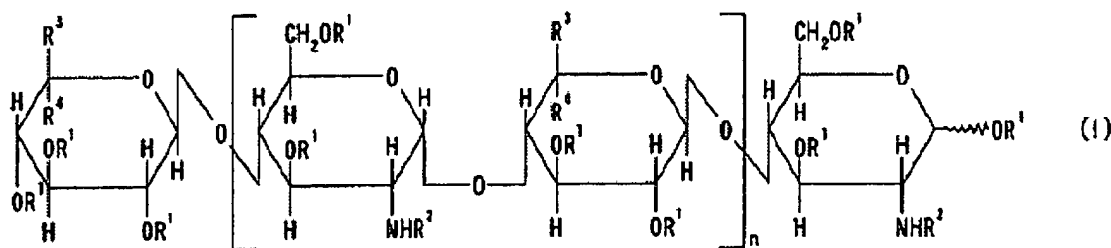
**26. (Withdrawn)** The method according to claim 23, wherein the oligosaccharide is di- to deca-saccharide.

27. **(Withdrawn)** The method according to claim 23, wherein the oligosaccharide is a degradation product prepared from high-molecular-weight heparin or high-molecular-weight heparan sulfate by digestion with heparinase or heparitinase.

28. **(Withdrawn)** The method according to claim 23, wherein the oligosaccharide is a degradation product prepared from high-molecular-weight heparin or high-molecular-weight heparan sulfate by any one of nitrous acid degradation, hydrogen peroxide degradation or  $\beta$ -elimination.

29. **(Withdrawn)** The method according to claim 23 wherein the oligosaccharide is any one of compounds represented by the following (a) to (h);

(a) formula (I):

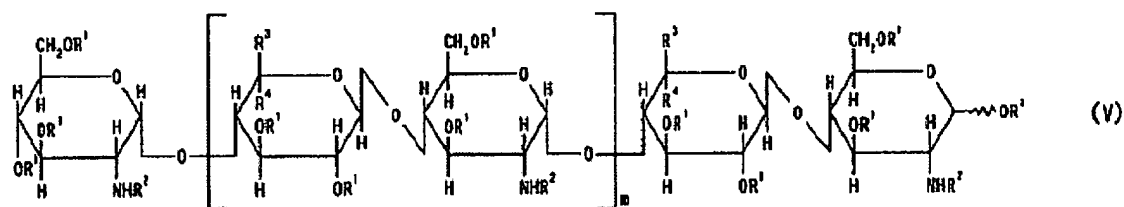


wherein R1 represents hydrogen, sulfate group, alkyl, acyl, or optionally substituted amino group, R2 represents hydrogen, sulfate group, alkyl or acyl group, R3 and R4 are different from each other and represent hydrogen or optionally substituted carboxyl group, and n represents 0 to 7,

(b) formula (II):

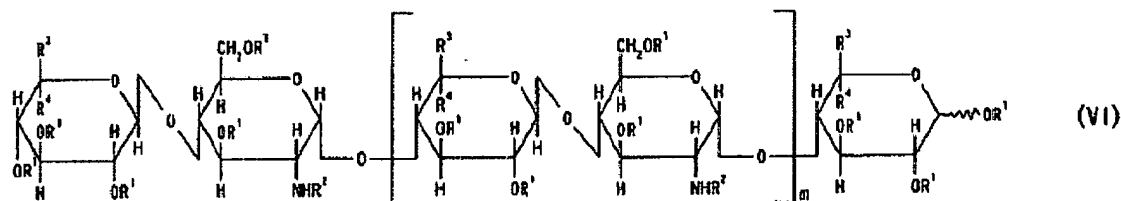
$$\begin{array}{c}
 \begin{array}{c}
 \text{R}^3 \\
 | \\
 \text{H} \text{---} \text{C} \text{---} \text{O} \\
 | \quad | \\
 \text{R}^4 \quad \text{OR}^1 \\
 | \quad | \\
 \text{OR}^1 \quad \text{H} \\
 | \quad | \\
 \text{H} \quad \text{OR}^1
 \end{array}
 \text{---} \text{O} \text{---}
 \left[ \begin{array}{c}
 \text{CH}_2\text{OR}^1 \\
 | \\
 \text{H} \text{---} \text{C} \text{---} \text{O} \\
 | \quad | \\
 \text{H} \quad \text{OR}^1 \\
 | \quad | \\
 \text{H} \quad \text{NHR}^2 \\
 | \quad | \\
 \text{H} \quad \text{OR}^1
 \end{array}
 \right]_n \text{---} \text{O} \text{---}
 \begin{array}{c}
 \text{R}^3 \\
 | \\
 \text{H} \text{---} \text{C} \text{---} \text{O} \\
 | \quad | \\
 \text{R}^4 \quad \text{OR}^1 \\
 | \quad | \\
 \text{OR}^1 \quad \text{H} \\
 | \quad | \\
 \text{H} \quad \text{OR}^1
 \end{array}
 \text{---} \text{O} \text{---}
 \begin{array}{c}
 \text{CH}_2\text{OR}^1 \\
 | \\
 \text{H} \text{---} \text{C} \text{---} \text{O} \\
 | \quad | \\
 \text{H} \quad \text{OR}^1 \\
 | \quad | \\
 \text{H} \quad \text{CH}_2\text{OR}^1
 \end{array}
 \end{array}
 \quad (III)$$
$$\begin{array}{c}
 \text{COOR}^1 \\
 | \\
 \text{C} \\
 | \\
 \text{OR}^1 \\
 | \\
 \text{H}
 \end{array}
 \begin{array}{c}
 \text{O} \\
 | \\
 \text{H}
 \end{array}
 \begin{array}{c}
 \text{CH}_2\text{OR}^1 \\
 | \\
 \text{H} \\
 | \\
 \text{OR}^1 \\
 | \\
 \text{H} \\
 | \\
 \text{NHR}^2
 \end{array}
 \begin{array}{c}
 \text{R}^3 \\
 | \\
 \text{H} \\
 | \\
 \text{OR}^1 \\
 | \\
 \text{H} \\
 | \\
 \text{OR}^1
 \end{array}
 \begin{array}{c}
 \text{O} \\
 | \\
 \text{H}
 \end{array}
 \begin{array}{c}
 \text{CH}_2\text{OR}^1 \\
 | \\
 \text{H} \\
 | \\
 \text{OR}^1 \\
 | \\
 \text{H} \\
 | \\
 \text{CH}_2\text{OR}^1
 \end{array}
 \quad (IV)$$

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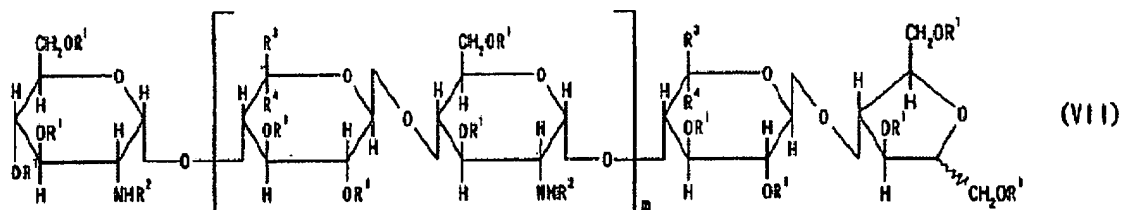
wherein m represents 0 to 6, and R1, R2, R3 and R4 are respectively the same as defined above,

(f) formula (VI):



wherein m represents 0 to 6, and R1, R2, R3 and R4 are respectively the same as defined above,

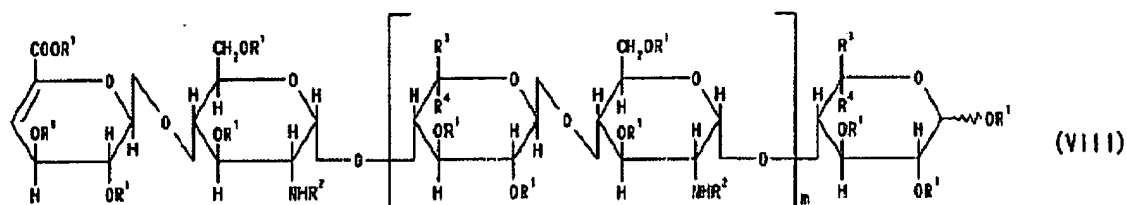
(g) formula (VII)



wherein m represents 0 to 6, and R1, R2, R3 and R4 are respectively the same as defined above,

and

(h) formula (VIII)



wherein m represents 0 to 6, and R1, R2, R3 and R4 are respectively the same as defined above.

**30. (Withdrawn)** A method for production of a medicament for promoting HGF production, which comprises mixing a sugar chain compound having a structure in which uronic acid residue(s) and glucosamine residue(s) are alternately and repeatedly connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage, wherein the hydroxy group at position 6 of at least one of the glucosamine residue(s) is sulfated, or a salt thereof, together with a carrier.

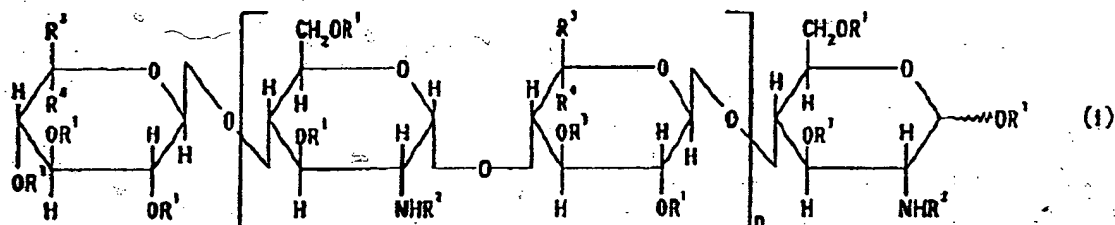
**31. (Withdrawn)** A method for production of a medicament for promoting HGF production, which comprises mixing a sugar chain compound having a structure in which uronic acid residue(s) and glucosamine residue(s) are alternately and repeatedly connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage, wherein at least one amino group at position 2 of the glucosamine residue(s) is sulfated, or a salt thereof, together with a carrier.

**32. (Withdrawn)** A method for production of a medicament for promoting HGF production, which comprises mixing a disaccharide compound comprised of an uronic acid residue and a glucosamine residue wherein the hydroxy group at position 6 and/or the amino group at position 2 of the glucosamine residue are/is sulfated are connected by  $\alpha$ 1,4-glycosidic linkage or  $\beta$ 1,4-glycosidic linkage, or a salt thereof, together with a carrier.

**33. (Withdrawn)** The method according to claim 23, wherein the sugar chain compound or a salt thereof has no or reduced anti-blood coagulation activity and/or lipoprotein lipase releasing activity.

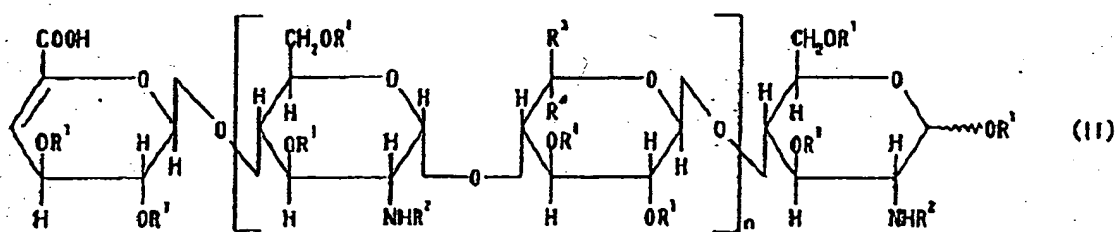
**34. (Currently Amended)** The method of promoting HGF production and suppressing anti-blood coagulation activity and LPL releasing activity of heparin fragment according to claim 12, wherein the oligosaccharide is any one of compounds represented by the following (a) to (h);

(a) formula (I):



wherein  $R^1$ ,  $R^3$  and  $R^4$  represents hydrogen,  $R^2$  represents sulfate group,  $R^3$  represents carboxyl group,  $R^4$  represents hydrogen, and  $n$  represents 0,

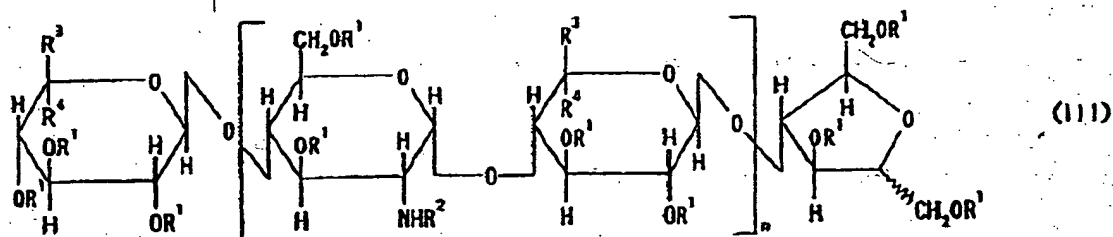
(b) formula (II):



wherein all the symbols are respectively the same as defined above  $R^1$  represents hydrogen, sulfate group, alkyl, acyl, or optionally substituted amino group,  $R^2$  represents hydrogen, sulfate group, alkyl or acyl group,  $R^3$  and  $R^4$  are different from each other and represent hydrogen or optionally substituted carboxyl group, and  $n$  represents 0 to 7

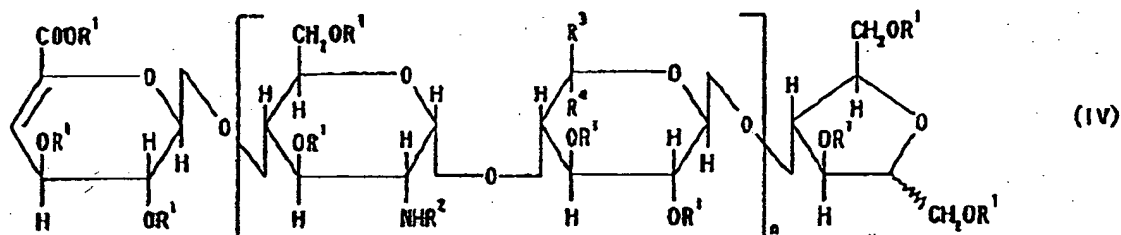
(c) formula (III):





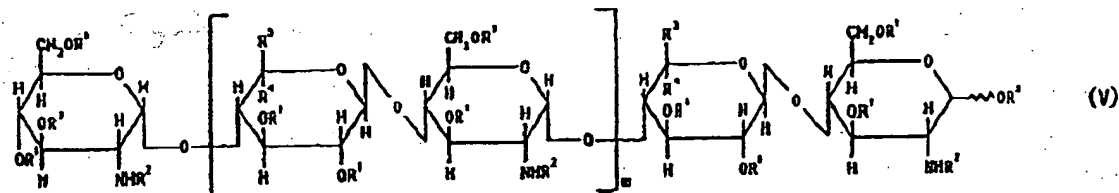
wherein all the symbols are respectively the same as defined in element (a) above,

(d) formula (IV):



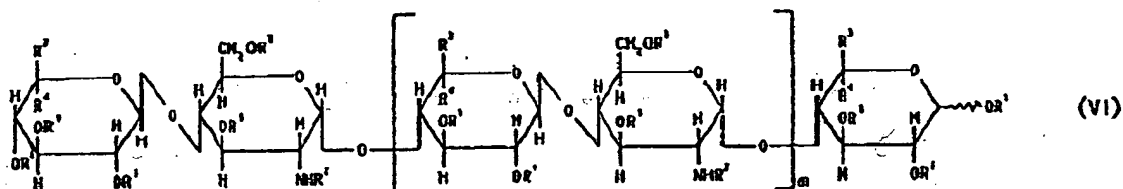
wherein all the symbols are respectively the same as defined in element (a) above,

(e) formula (V):



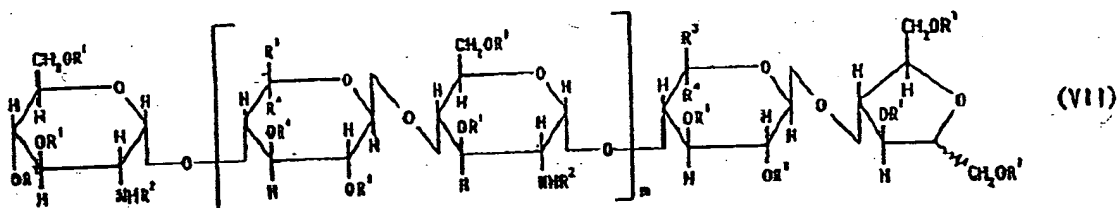
wherein m represents 0,  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are respectively the same as defined in element (a) above,

(f) formula (VI):



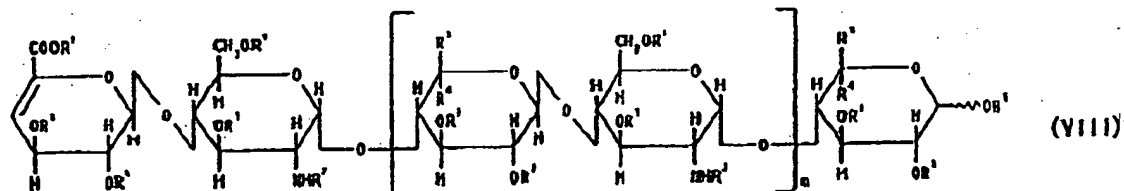
wherein m represents 0, and  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are respectively the same as defined in element (a) above,

(g) formula (VII)



wherein m represents 0, and  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are respectively the same as defined in element (a) above, and

(h) formula (VIII)



wherein m represents 0, and  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are respectively the same as defined in element (a) above.